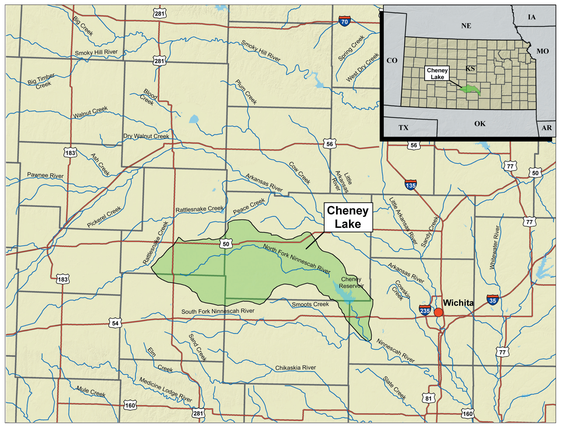
United States Department of Agriculture

Conservation Effects Assessment Project (CEAP)

Cheney Lake Watershed, Kansas: 2004-2006

An NRCS* Special Emphasis Watershed, one of 24 CEAP watershed projects.



CEAP Assessment

Evaluate downstream effects of current Conservation Reserve Program (CRP) and Environmental Quality Incentives Program (EQIP) practices.

Watershed Description

Drains into Cheney reservoir which provides the city of Wichita with 70% of its daily water supply for more than 400,000 residents.

- 630,000 acres
- 58% cropland and 25% rangeland
- Cheney reservoir is designated a high priority impaired water body under the Clean Water Act.

Issues: Phosphates and sediment pollute the reservoir.

*Natural Resources Conservation Service

Approach

Water sampling: Sediment, nutrients

Watershed models: AnnAGNPS (Annualized Agricultural Non-Point Source)

Water quality monitoring: Extensive U.S. Geological Survey project (1996-2000) at five locations will be used to calibrate and validate AnnAGNPS.

Communicating Results

2004 annual progress report (published): focused on impacts of water, sediment, and agricultural chemicals with and without CRP and EQIP practices.

2005 progress report will examine effects of ephemeral gully development and atrazine management.

2006 progress report will study effects of livestock feedlots and improvement management of center pivot irrigation.

Collaborators

- U.S. Department of Agriculture
- U.S. Geological Survey
- U.S. Environmental Protection Agency
- U.S. Bureau of Reclamation
- County Conservation Districts for Reno, Stafford, Pratt, and Kingman
- Cheney Lake Watershed, Inc.

Contacts

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Containment of polluted runoff water on a confined animal feeding operation.

Cheney watershed livestock producer and watershed staff discuss operation of solar pump, well and tank which provide alternate water to livestock rather and a stream.

Containment of solid waste in a concrete structure and containment of liquid waste can significantly improve water quality.

Timeline

2003
Initial funding

2004
August CEAP bibliographies

2005
May Wetlands peer review
July Wildlife literature review (program-based)
October Cropland literature reviews
Wildlife literature review (practice-based)
Wildlife Work Plan
November Wetlands Work Plan
December Draft findings—Prairie Pothole region

2006
February Preliminary habitat quality models—Prairie Potholes wetland region
March Preliminary National Assessment Report

2007
Fall National Assessment Final Report
Special Emphasis Watershed reports

www.nrcs.usda.gov/technical/nri/ceap/